

RECLAMATION DISTRICT NO. 800 - BYRON TRACT

DISCOVERY BAY RECLAMATION AND DRAINAGE MAINTENANCE DISTRICT

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October 24, 2002

Mr. Paul Marshall
California Department of Water Resources (DWR)
Bay-Delta Office
Post Office Box 942836
1416 Ninth Street
Sacramento, CA 94236-0001

Re: Notice of Preparation
South Delta Improvements Program
DEIR/DEIS

Dear Mr. Marshall,

Over the last decade Reclamation District No. 800 (RD 800) has been working with DWR on various versions of this project and we feel that we have made progress in developing an understanding with DWR of the potential impacts that this project may have on RD 800.

Included in the list of potential impacts is the proposed dredging of Old River and West Canal in order to improve conveyance capacity to Clifton Court Forebay. We understand, pursuant to your testimony at the October 7, 2002 workshop in Sacramento, that dredging shown to include Old River is in error and that the project only intends to dredge portions of West Canal. Provided this is correct RD 800 has no further comment relative to dredging, whereas if DWR does intend to dredge in Old River then RD 800 has a number of concerns all of which have been expressed in past correspondence. In summary those concerns of dredging include:

Impacts associated with

- ☐ Water side slope stability
- ☐ Lateral Spreading
- ☐ Increased Seepage
- ☐ Channel Hydraulics

RD 800 has continually expressed their concerns to DWR over the last several years regarding the potential for destabilization of their levees due to dredging in Old River. In response to these concerns DWR's Division of Engineering even undertook a separate analysis to evaluate the potential impacts of previous dredging proposals on RD 800's levees.

Water slope stability would be affected by dredging in Old River by removing material from the foundation of RD 800's levees. Failure analysis shows critical sliding surfaces extending out to the river bottom near the center of the river. Dredging of Old River will impact these critical cross sections.

An additional impact associated with dredging of Old River is the potential for lateral spreading of RD 800's levee. Lateral Spreading refers to ground or slope movement associated with decrease in soil strength resulting from seismic activity. Dredging resulting in changes to the channel geometry will reduce the resistance to lateral spreading of the levee toward the river.

The potential for increased seepage and the disturbance or removal of seepage barriers along the river bottom will result in increase piezometric conditions beneath the levee and corresponding decrease in levee stability.

Information related to the hydraulic design of the channels conveying the water through Old River to the Banks Pumping Plant must be considered. Depending on the hydraulic parameters and the ultimate channel configuration of Old River the impacts to RD 800's levees will vary. The potential for scour of the slopes along RD 800's levees must be considered and detailed scour analysis must be performed including its affect on levee stability.

Other issues in addition to impacts associated with levee stability, include a request that DWR perform an analysis for splitting the flow requirements for the Clifton Court Forebay between Middle River via Victoria Canal and Old River.

Consideration of increased exports has the potential for impacting water levels throughout RD 800 and the Discovery Bay Development. Agricultural uses within RD 800 rely upon gravity fed siphons to irrigate their crops and Discovery Bay relies upon similar gravity fed type siphons to circulate water through the Bays for water quality purposes. In either case, any reduction in the water surface elevations caused by additional exports will directly impact the ability to operate the gravity fed siphons for agricultural and water quality purposes.

RD 800 request DWR's consideration of the matters set forth herein in the proposed DEIR/DEIS. If you have any questions regarding the District's position on this matter please call the undersigned or the District's Engineer Christopher H. Neudeck @ (209) 946-0268.

Sincerely,
RECLAMATION DISTRICT NO. 800 BYRON TRACT



Jeffrey D. Conway, Mgr.

cc:

Trustees
David Aladjem, Esq
Christopher H. Neudeck, Engr